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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/631,213 | 07/31/2003 | Horace W. Furumoto | 1498.1021-015 | 1428 |

21005 7590 03/31/2005

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| EXAMINER |
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FARAH, AHMED M

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

3739

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/631,213 | FURUMOTO, HORACE W. | |
| | Examiner | Art Unit | |
| | Ahmed M Farah | 3739 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/10/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because the abstract contains more than 150 words. Correction is required.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-9, 11, 12, and 15-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Eckhouse et al. U.S. Patent No. 5,964,749.

Eckhouse et al. disclose apparatus and methods of use for skin treatment, the apparatus comprising a light source for generating a packets of light pulses with a variable delays between pulses in the range of 10-100 milliseconds. They further teach that the total number of pulses per pulse train can be varied (see col. 5, lines 37-45). Hence, Eckhouse et al. clearly teach a skin treatment light source that generates plurality of pulse trains (long effective output), wherein each pulse train further comprises various of sub-pulses.

In one embodiment, they teach the delay between pulse trains is in the range of between 0.5 to 10 milliseconds. The shorter pulse delays between the sub-pulses is less than the thermal relaxation time of the targeted structure (col. 6, lines 26-32). Furthermore, the pulse delay between the successive pulse trains is greater than the thermal relaxation time of the non-targeted structure, epidermis in this case.

As to claims 15-18, Eckhouse teach that the appropriate laser sources include an Nd:YAG laser, a ruby laser, an alexandrite laser, diode lasers and others (col. 3, lines 48-50). As to claims 20-22, the applicant recites an intended use of the treatment device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhouse et al. in view of Miller U.S. Patent 6,027,495.

Although Eckhouse et al., described above, disclose that it is known to use gas discharge lasers for dermatological treatments (col. 1, lines 48-55), they do not use a gas discharge laser or a dye laser for their invention. They further fail to teach the targeted structures include normal sized blood vessels.

However, Miller discloses apparatus and method for removal of unwanted leg veins and other vascular lesions from skin of a patient, the method comprising the steps of: generating a long effective output light pulse having a pulse duration in the range of about 1-99 milliseconds (col. 9, line 10); and directing the output light pulse to the tissue being treated (see claim 1 and the abstract).

As to claim 12, Miller teaches the use of various laser sources including a dye laser (Col. 2, line 45) and a semiconductor laser (Col. 9, line 7). As to claims 4 and 5, he discloses that the targeted structure comprises blood vessels that are larger than 30 microns in diameter (Col. 7, lines 26-27).

Therefore, it would have been obvious to one skilled in the art at the time of the applicant's invention to modify Eckhouse et al. with Miller and use a dye laser, a gas discharge laser, or other suitable laser as an alternative light source in order to provide treatment light to a desired tissue. It would have been further obvious to use the treatment device for vascular treatment as described by Miller.

Response to Arguments

Applicant's arguments filed on Nov. 19, 2004, have been fully considered but they are not persuasive.

Applicant argues that the Muller patent (6,027,495) is not prior art to the instant application because the application/patent (5,658,323) in which it claim to its earliest priority date fails to disclose a pulse width of 1-3 milliseconds. However, although the examiner believes that the variable pulse width of 1-100 milliseconds disclosed by Muller ('323) would still meet the claimed pulse durations (see Muller '323, col. 5, lines 37-39), the Office Action has been revised in order to expedite examination of the application.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed M Farah whose telephone number is (571) 272-4765. The examiner can normally be reached on Mon-Thur. 9:30 AM-7:30 PM, and 9:30 AM - 6:30 PM on every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M DVorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-0758.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A. Farah,
Primary Examiner, AU 3739

A handwritten signature in black ink, appearing to read 'A. Farah', written over the printed name and title.

February 7, 2005.